



Date of test 8.2.2016
Date of expiry 8.2.2019
Number of pages 4 C / D

Test Certificate No. 9941.1/16-2

This Certificate is only valid when complete with all 4 pages.

Applicant Qatar Polymer Industrial Company
P.O. Box: 33195, Doha, Qatar

Test piece *Flexible Intermediate Bulk Containers - SWL = 1000 kg, SF = 5:1*
Single trip FIBC, Category 3.2.3, EFIBCA-Standard 001

Design **Manufacturer's type designation** QPIC - CRZZ - 1000 KG, 5:1 / 2016

Dimensions **Samples a + b:** (90 cm x 90 cm) x 90 cm (lowest size)¹⁾ **Volume** 800 litres **Tare** 1220 g
Samples c + d: (90 cm x 90 cm) x 200 cm (highest size)¹⁾ **Volume** 1800 litres **Tare** 2000 g

Wall fabric Circular fabric, Polypropylene, white fabric with four green and twenty blue coloured tapes and eight interwoven reinforcing stripes, weight of plain area 180 g/m², uncoated, weight of reinforced area 250 g/m², uncoated²⁾

Base fabric Polypropylene 190 g/m², uncoated²⁾

Suspension Four white PP-webbings (75 mm wide, 48 g/m), sewn into the vertical seams in a length of 30 cm / 30 cm, cross corner design

Details No vertical seams, four horizontal seams at the bottom (overlock + chain stitching) / wall and base fabric folded in the bottom seams / open top³⁾ / no inliner / discharge spout d = 40 cm³⁾ made of PP- fabric 70 g/m² + 20 g/m² coating, double seam

Kind of tests *Type Tests according to EFIBCA-STANDARD 005*

005 § 4.1 Cyclic top lift tests plus final load to failure (tests a + b)
005 § 4.2 Compression test (tests c + d)

Test conditions Charging with plastic granules (filling height approx. 85 cm (lowest size) resp. 195 cm (highest size), load application with piston and pressure plate (d = 90 cm), rate of load application 70 kN/min.

Cyclic load **Tests a - d** After 30 cycles of load application to P_c = 30 kN (3060 kg) no visible damages occurred in the test pieces. The load has then been increased until failure.

Load to failure

Test a P_b = 64,4 kN (6560 kg) the fabric tore beside and below two webbing attachments.
Test b P_b = 67,5 kN (6880 kg) the fabric tore at a bottom seam.
Test c P_b = 69,2 kN (7050 kg) the fabric tore beside and below a webbing attachment.
Test d P_b = 66,5 kN (6770 kg) the fabric tore beside and below two webbing attachments.

Compression **Tests e - h** After compression by P_k = 50 kN (5100 kg) no visible damages occurred in the test pieces.

Test result *A safe working load SWL = 1000 kg / SF = 5:1 is allowable.*

Statement of conformity The FIBCs tested comply with the requirements of EFIBCA-Standard 005
FIBCs of this design type are in a condition for safe operation.

Notes

This certificate is restricted to FIBCs produced by Qatar Polymer Industrial Company.
¹⁾ This certificate covers all FIBCs with heights of between 90 cm and 200 cm.
Test diagrams see page 2. Photos of the test pieces see page 3.
²⁾ Raw material: Pure virgin polypropylene (statement of the manufacturer)
³⁾ "Directions for use referring to this certificate" see page 4.
Two test pieces are kept in our store for three years. This certificate expires on 8.2.2019.

Competent Engineer

Ronald Clews

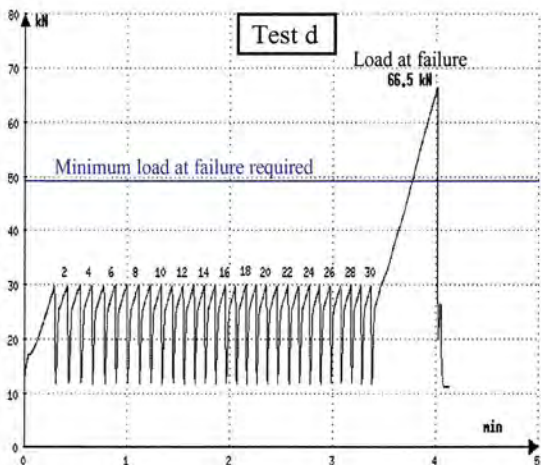
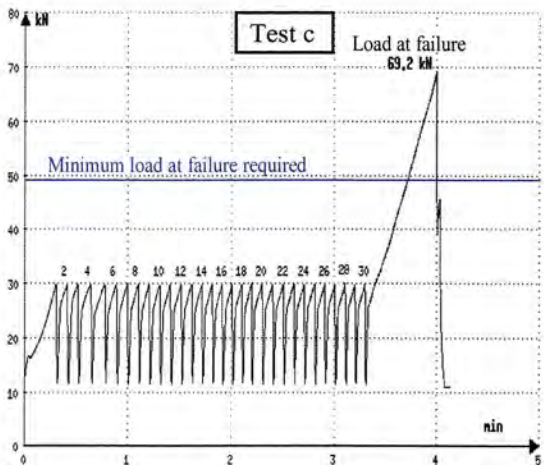
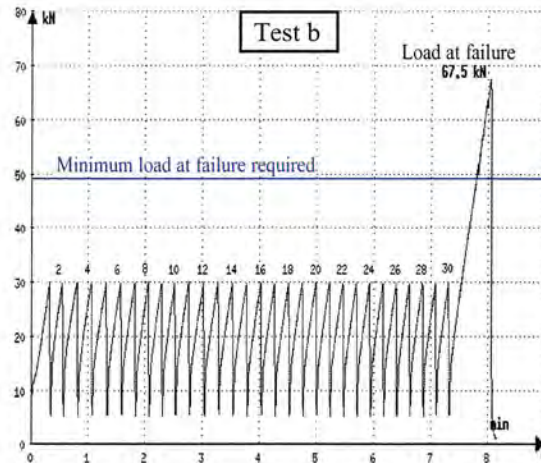
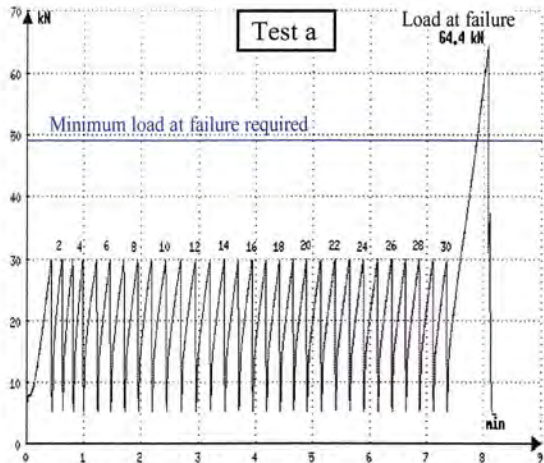


Head of Institute

Dr.-Ing. Kielbassa



FIBC - Cyclic top lift tests Test diagrams 9941.1 a, b, c, d / 16 - 2



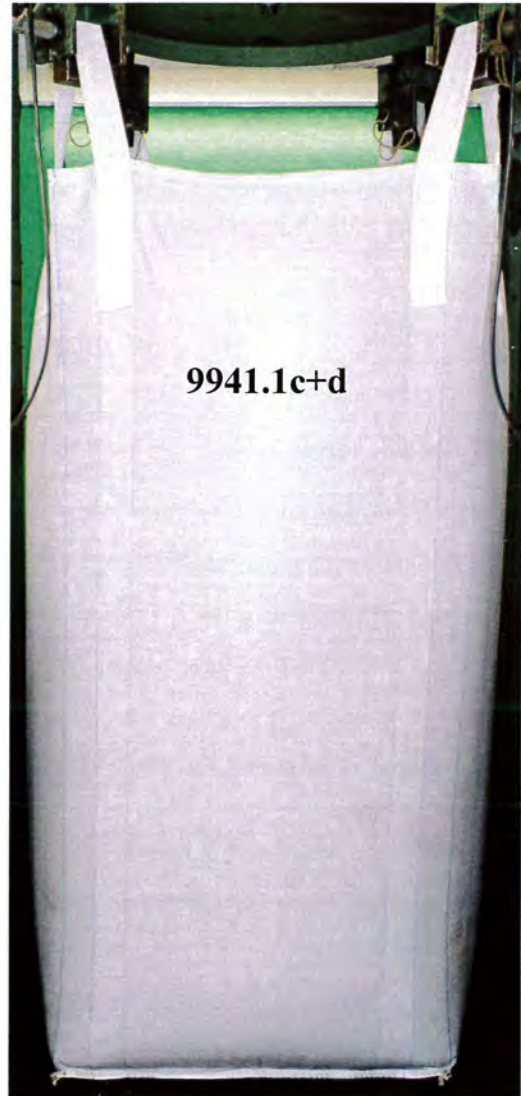
Project data

Applicant : Qatar Polymer Industrial Company
Test piece a + b : FIBC 90 cm x 90 cm x 90 cm
Test piece c + d : FIBC 90 cm x 90 cm x 200 cm
Safe working load : SWL = 1000 kg
Safety factor : SF = 5 : 1

Test data

Test date : 8.2.2016
Test Standard : EFIBCA 005
Load at failure, test a : $P_b = 64,4 \text{ kN} = 6560 \text{ kg}$
Load at failure, test b : $P_b = 67,5 \text{ kN} = 6880 \text{ kg}$
Load at failure, test c : $P_b = 69,2 \text{ kN} = 7050 \text{ kg}$
Load at failure, test d : $P_b = 66,5 \text{ kN} = 6770 \text{ kg}$

FIBC - Cyclic top lift tests Photos of two test samples



Project data

Applicant : Qatar Polymer Industrial Company
Test piece a + b : FIBC 90 cm x 90 cm x 90 cm
Test piece c + d : FIBC 90 cm x 90 cm x 200 cm
Safe working load : SWL = 1000 kg
Safety factor : SF = 5 : 1

Test data

Test date : 8.2.2016
Test Standard : EFIBCA 005
Load at failure, test a : Pb = 64,4 kN = 6560 kg
Load at failure, test b : Pb = 67,5 kN = 6880 kg
Load at failure, test c : Pb = 69,2 kN = 7050 kg
Load at failure, test d : Pb = 66,5 kN = 6770 kg



Directions for use referring to this certificate

This certificate covers FIBCs of like design, manufactured using like materials and methods of construction as set down in this certificate and showing dimensions as listed below and in the certificate. The use of other methods or components may render the certificate invalid. It is the responsibility of FIBC manufacturers to ensure the samples tested are representative of the production.

Allowed (covered by this certificate)	Not allowed (not covered by this certificate)
Diameters of discharge spout smaller than 40 cm	Diameters of discharge spout larger than 40 cm
Base without discharge spout	
Base dimensions of between 90 cm x 90 cm and 99 cm x 99 cm provided the same geometry is maintained	Base dimensions smaller than 90 cm x 90 cm Base dimensions larger than 99 cm x 99 cm
Bag heights of between 90 cm and 200 cm	Bag heights smaller than 90 cm Bag heights larger than 200 cm
Use for one filling and one discharge only	Re-use of the FIBCs
Open top or any other design of top construction	Manufacture by Qatar Polymer Industrial Company after expiry date of this certificate: 8.2.2019

Label

All FIBCs shall be durably marked by means of a permanently attached and easily visible and readable label. The layout of the label referring to this certificate shall be as shown below with the following data:

Manufacturer's Name & Address and Logo Manufacturer's Reference (unique to the hereby certified FIBC type)	
SWL 1000 kg	Safety Factor 5 : 1
Your logos etc.	Test Certificate No 9941.1/16-2
	Test Certificate Date 8.2.2016
	Approved Laboratory LABORDATA
	Test Standard EFIBCA 005
	FIBC Class Single-trip
	Date FIBC manufactured
Handling Recommendations / Pictograms (proposals see www.labordata.com)	
Supplier's Name & Address (if required)	